

7-9. CIRCUIT BREAKER, DIODE, AND RELAY REPLACEMENT

This task covers:

- a. Removal
- b. Installation
- c. Follow-On Maintenance

INITIAL SETUP

Equipment Conditions

- Batteries disconnected (para 7-57).
- PDP cover removed (para 16-2).

NOTE

All circuit breakers, diodes, and relays are replaced the same way. Circuit breaker replacement shown.

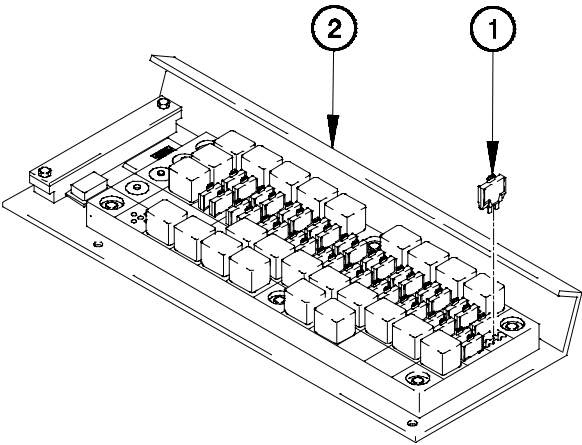
a. Removal.

- (1) Locate diode, relay, or circuit breaker to be replaced.

NOTE

Refer to Figure 7-1. Power Distribution Panel (PDP) Circuit Breakers, Diodes, and Relays, Table 7-1. Power Distribution Panel (PDP) Relays, and Table 7-1.1 Power Distribution Panel (PDP) Circuit Breakers for details.

- (2) Remove circuit breaker (1) from PDP (2).



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Figure 7-1. Power Distribution Panel (PDP) Circuit Breakers, Diodes, and Relays

	D3	K12	K15	K9	K2		K32	K13	K19	K24	
CB30 CB45 CB20 CB48 CB41 CB42 CB44 CB43 CB50 CB39 CB36 CB23 CB21 CB22 CB79 CB40 CB37 CB49 CB77 CB68											
	D1										
CB72 CB67 CB63 CB66 CB80 CB64 CB66 CB76 CB70 CB78 CB38 CB36 CB71 CB74 CB73 CB63 CB64 CB61 CB62											
	D2										
	Storage		K25	K29	K6	K11	K26	K1	K10	K8	K7
	K20	K52	K53	K28	K27		K30	K31	K34	K37	

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Table 7-1. Power Distribution Panel (PDP) Relays

Relay	VDC	Throw	Function	Remarks
K1	24 VDC	SPST	Starter Relay	
K2	12 VDC	SPST	Control Power Relay	
K6	12 VDC	SPST	Stop Light Relay	
K7	12 VDC	SPST	Headlight Relay	
K8	12 VDC	SPDT	Headlight LO/HI-Beam Relay	
K9	12 VDC	SPDT	Hazard Flasher Blackout Override Relay	
K10	12 VDC	SPDT	Stop/Hazard Flasher Relay	
K11	24 VDC	SPDT	Alternator Excitation Relay	
K12	12 VDC	SPST	Worklights Relay	M1088/M1089
K13	12 VDC	SPST	Rotating Beacon Blackout Override Relay	
K15	24 VDC	SPDT	Auxiliary Oil Cooler Relay	
K19	24 VDC	SPDT	Start Inhibit Relay	
K20	12 VDC	SPST	Marker Lights Relay	
K24	24 VDC	SPDT	Cranking Lock-Out Relay	
K25			Empty	WTEC II
K25	24 VDC	SPST	Reverse Warning Relay	WTEC III
K26	24 VDC	SPST	Neutral Start Relay	WTEC III
K26			Empty	WTEC II
K27	12 VDC	SPST	Blackout Stop Relay	
K28	12 VDC	SPST	Trailer Rear Light Relay	
K29	12 VDC	SPST	Blackout Marker Relay	
K30	12 VDC	SPST	Rear Left Composite Lamp Relay	
K31	12 VDC	SPST	Right Rear Composite Lamp Relay	
K32	24 VDC	SPST	Horn Relay	
K34			Empty	WTEC II
K34	24 VDC	SPDT	Inter-Axle Relay	WTEC III
K37			Empty	WTEC II
K37	24 VDC	SPST	PTO Relay	WTEC III
K52	12 VDC	SPDT	CTIS Overspeed Indication Relay	
K53	24 VDC	SPDT	Radio Power	

7-9. CIRCUIT BREAKER, DIODE, AND RELAY REPLACEMENT (CONT)

Table 7-1.1 Power Distribution Panel (PDP) Circuit Breakers

CB	Amp	Function	Reset	Remarks
CB20	25 AMP	Cab Radio	Manual	
CB21	15 AMP	Air Dryer, Dump Up Indicator Light, Dump Up Indicator Switch, Frequency Divider, Interaxle Differential Solenoid, and Starter Pushbutton Switch	Manual	
CB22	10 AMP	Engine Fan Off Switch, Ether Start Solenoid, Ether Start Switch, Fan Solenoid, Water Temperature Switch, and Water Temperature Switch (fan)	Manual	
CB23	15 AMP	Personnel Heater	Manual	
CB30	10 AMP	Chemical Alarm, Chemical Detector, and Chemical Detector Indicator Light	Manual	
CB35	15 AMP	WTEC II TEPSS and WTEC II VIM	Manual	WTEC II
CB35	15 AMP	Empty	Manual	WTEC III
CB36	20 AMP	Horn	Manual	
CB37	20 AMP	Windshield Wiper ECU and Wiper Motor	Manual	
CB38	20 AMP	Rotating Warning Light(s)	Manual	
CB39	10 AMP	24 VDC Intervehicular Blackout Stoplights	Manual	
CB40	10 AMP	CTIS, CTIS Air Pressure Switch, and CTIS Overspeed Indicator Light	Manual	
CB41	15 AMP	24 VDC Intervehicular Clearance and Rear Lights	Manual	
CB42	10 AMP	24 VDC Intervehicular Blackout Clearance, Left Blackout Marker, and Right Black Marker Lights	Manual	
CB43	15 AMP	24 VDC Intervehicular Left Turn Light and Stoplight	Manual	WTEC II
CB43	10 AMP	WTEC III Transmission ECU Power	Manual	WTEC III
CB44	15 AMP	24 VDC Intervehicular Right Turn Light and Stoplight	Manual	WTEC II
CB44	15 AMP	24 VDC Intervehicular Right and Left Turn Lights and Stoplights	Manual	WTEC III
CB45	15 AMP	Not Used	Manual	
CB48	20 AMP	Not Used	Manual	
CB49	15 AMP	Fuel/Water Separator, PTO Solenoid, PTO Switch, Winch In Solenoid, Winch In/Out Switch, Winch Out Solenoid, and Winch Switch	Manual	
CB50	15 AMP	Dump Down Solenoid, Dump Up Solenoid, Dump Up/Down Switch, Tailgate Release Switch, Wrecker Control Panel, and Wrecker Remote Control	Manual	M1090/M1094
CB53	15 AMP	Material Handling Crane	Manual	

Table 7-1.1 Power Distribution Panel (PDP) Circuit Breakers (CONT)

CB	Amp	Function	Reset	Remarks
CB54	8 AMP	Blackout Drive Light	Manual	
CB61		Empty		
CB62		Empty		
CB63		Empty		
CB64		Empty		
CB65	8 AMP	Front Right and Left Parking Lights	Manual	
CB66	8 AMP	Front Left, Front Right, Rear LH, and Rear RH Blackout Marker Lights and WTEC II/WTEC III TPSS Dimmer Module	Manual	
CB67	25 AMP	12 VDC Intervehicular Marker Light and All Marker Lights	Manual	
CB68	25 AMP	Auxiliary Oil Cooler Fan Motors	Manual	M1088/M1089
CB68	20 AMP	Auxiliary Oil Cooler Fan Motors	Manual	All models except M1088/M1089
CB70	20 AMP	Circuit Breakers CB54, CB65, CB66, CB74, and CB76, Dimmer Switch, Instrument and Auxiliary Panel Rocker Switch Lights, Instrument and Auxiliary Panel Gage Lights, Main Light Switch, Master Power Switch, and Personnel Heater Lights	Manual	
CB71	15 AMP	Hazard Warning Switch, Turn Signal Flasher, and Worklight Switch	Manual	
CB72	15 AMP	Worklights, Blackout Override Switch	Manual	
CB73	8 AMP	Backup Light	Manual	
CB74	10 AMP	Turn Signal Flasher ECU	Manual	
CB76	15 AMP	12 VDC Intervehicular Left and Right Turn Signals, and Stoplight, 24 VDC Intervehicular Auxiliary, Front Left and Right Turn Signals, Hazard Warning Switch, Left and Right Blackout Stoplights, Left and Right Turn Signal Indicators, Rear Right and Left Turn Signals, Stoplight Switches (A) and (B), Tractor Stoplight Switch, and Turn Signal Flasher ECU	Manual	

7-9. CIRCUIT BREAKER, DIODE, AND RELAY REPLACEMENT (CONT)

Table 7-1.1 Power Distribution Panel (PDP) Circuit Breakers (CONT)

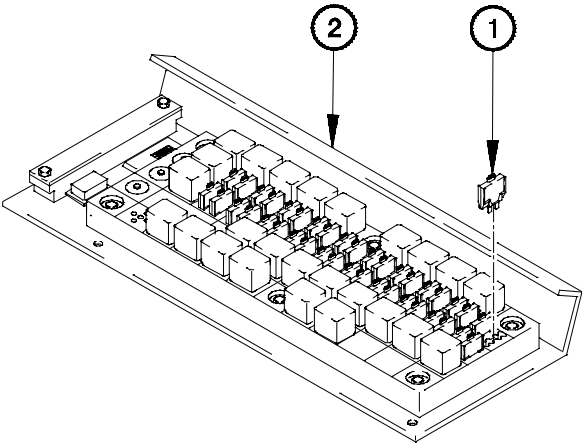
CB	Amp	Function	Reset	Remarks
CB77	10 AMP	Instrument and Auxiliary Panel Gages, Audible Alarm, Emergency Brake Indicator Light, Engine Fan Off Indicator, Engine Fan Off Switch, Engine Oil Pressure Switch, Low Engine Oil Pressure Sensor, Engine Oil Pressure Switch, Front and Rear Brake Air Indicator Lights, Front and Rear Brake Air Indicator Light Switches, Front and Rear Brake Air Pressure Transmitters, Magnetic Pickup, Master Stop Indicator Light, Parking Brake Indicator Light, Parking Brake Switch, PTO Indicator Light, PTO Pressure Switch, Transmission Temperature Indicator Light, Troop Transport Alarm Switch, Water Temperature Indicator Light, Water Temperature Sensor, and Water Temperature Switch	Manual	
CB78	15 AMP	Left and Right Headlights	Auto	
CB79	15 AMP	WTEC II 10 AMP Fuse TEPSS, Fuel Solenoid, M1089 Remote Engine Kill Switch, and Start Inhibit Pushbutton Switch	Manual	WTEC II
CB79	15 AMP	WTEC III Transmission ECU Power, Fuel Solenoid, M1089 Remote Engine Kill Switch, and Start Inhibit Pushbutton Switch	Manual	WTEC III
CB80	25 AMP	12 VDC Intervehicular Taillight, Left and Right Taillights	Manual	

b.Installation.

NOTE

Refer to Figure 7-1. Power Distribution Panel (PDP) Circuit Breakers, Diodes, and Relays, Table 7-1. Power Distribution Panel (PDP) Relays, and Table 7-1.1 Power Distribution Panel (PDP) Circuit Breakers for details.

Install circuit breaker (1) on PDP (2).



c.Follow-On Maintenance.

- (1) Install PDP cover (para 16-2).
- (2) Connect batteries (para 7-57).

End of Task.

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